



US005389395A

United States Patent [19]

Joseph et al.

[11] **Patent Number:** **5,389,395**[45] **Date of Patent:** **Feb. 14, 1995**

[54] **NUTRITIONAL BAR FOR A
PROTEIN-SPARING DIET OF THE
VERY-LOW-CALORIE TYPE**

[75] **Inventors:** **Robert L. Joseph**, Columbus; **Sherri A. Walker**, Alexandria, both of Ohio; **Caroline H. Ikeda**, Lakewood, Calif.; **Lisa D. Craig**; **Karen A. Cashmere**, both of Columbus, Ohio

[73] **Assignee:** **Abbott Laboratories**, Abbott Park, Ill.

[21] **Appl. No.:** **164,165**

[22] **Filed:** **Dec. 7, 1993**

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 985,392, Dec. 4, 1992, abandoned.

[51] **Int. Cl.⁶** **A23L 3/00**

[52] **U.S. Cl.** **426/72; 426/810; 426/74; 426/534; 426/548; 426/641; 426/648; 426/650; 426/651; 426/656; 426/658; 426/804**

[58] **Field of Search** **426/72, 74, 548, 534, 426/650, 651, 658, 648, 641, 656, 804, 810**

[56] **References Cited****U.S. PATENT DOCUMENTS**

3,901,977 8/1975 Rebane 426/810

4,900,566 2/1990 Howard 426/72

FOREIGN PATENT DOCUMENTS

4-158744 6/1992 Japan .

WO92/02149 2/1992 WIPO .

OTHER PUBLICATIONS

Hussein et al., "Determination of Reactivity of Aspartame with Flavor Aldehydes by Gas Chromatography,

HPLC and GPC", *Journal of Food Science*, 49:520-524 (1984).

Cha et al., "Studies of the Interaction between Aspartame and Flavor Vanillin by High Performance Liquid Chromatography", *Journal of Food Science*, 53(2):562-564 (1988).

Wong et al., *Fundamentals of Dairy Chemistry*, Third Edition, Table 2.5, p. 62 (1988).

Bolton et al., *Perfumer & Flavorist*, vol. 17, No. 2, Mar.-/Apr. 1992, "The Oxidative Stability & Retention of a Limonene-Based Model Flavor Plated on Amorphous Silica & Other Selected Carriers" pp. 2-20.

Peppard et al., *Proc. Cong-Eur. Brew. Conv.*, 19, 1983. "Relating Flavor Stability to Different Raw Materials & Brewing Processes", pp. 549-556.

W. R. Grace & Co., Material Safety Data Sheet for SYLOX® Silicas (1992).

Primary Examiner—Helen Pratt

Attorney, Agent, or Firm—Lonnie R. Drayer; Donald O. Nickey

[57] **ABSTRACT**

An unbaked low calorie food bar containing proteinaceous material, flavoring, aspartame and carbohydrate material which is formed by extrusion and exposed to a maximum temperature of about 37° C., and has a uniformly homogeneous composition. The low calorie food bar also contains vitamins and minerals comprising at least 4.5% of the food bar by weight and the concentration of proteinaceous material is greater than the concentration of carbohydrate material. The method comprises the steps of providing proteinaceous material, flavoring, aspartame and carbohydrate material as ingredients in a food product; mixing the ingredients; and forming the mixture into a food product, with the flavoring being stabilized by plating the flavoring on synthetic amorphous silica. Additionally, the plated silica is added.

20 Claims, No Drawings